

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P854950

Luminaire Tested: SQ2-PH1-100U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

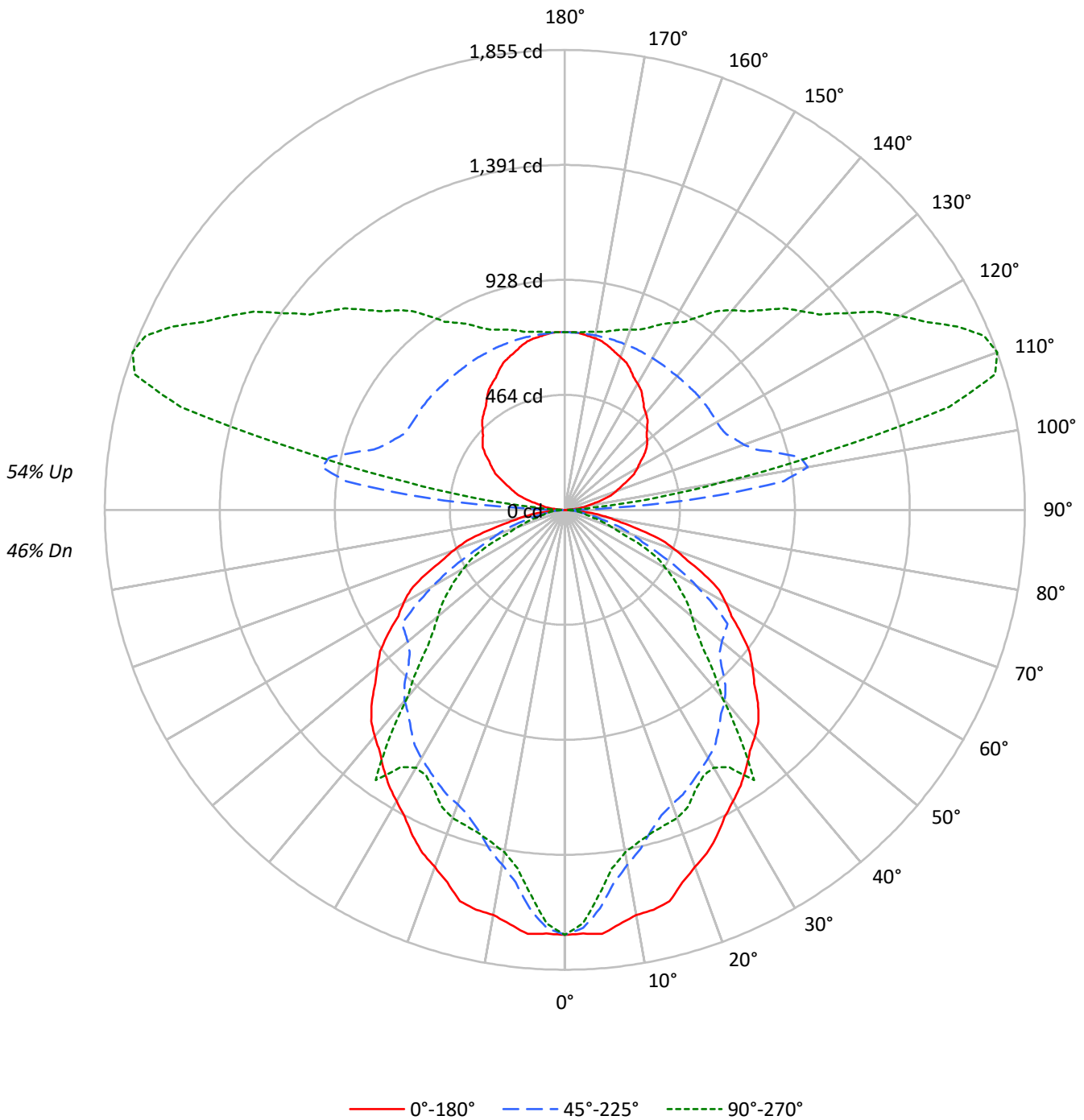
Test Method: LM-79-2019  
Report Number: P854950  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-075D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8253.8 lumens  
Efficiency: N/A  
Efficacy: 139.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 59.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	93	89	86	89	85	82	79	71	69	67	59	57	55	47	46	45	39
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	39	38	33
3	81	71	64	59	74	66	60	55	55	51	47	46	42	39	37	34	32	28
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16
8	54	41	34	28	49	38	32	27	33	27	24	27	23	20	22	19	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	27679	27679	27679
5°	27835	26172	25298
10°	27196	23825	22997
15°	27318	22410	22547
20°	26344	21720	22727
25°	25860	21618	22199
30°	25299	21559	22380
35°	25109	21313	26233
40°	25130	21176	20799
45°	25138	20372	17915
50°	24787	20773	16799
55°	24473	22542	16113
60°	24228	19753	15116
65°	23805	16011	13150
70°	22480	13629	9394
75°	20044	10274	7124
80°	16383	6676	6676
85°	10263	6058	4520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25138 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.8	1.8
10°-20°	396.8	4.8
20°-30°	581.8	7.0
30°-40°	704.5	8.5
40°-50°	692.8	8.4
50°-60°	603.1	7.3
60°-70°	419.3	5.1
70°-80°	198.8	2.4
80°-90°	45.1	0.5
90°-100°	299.3	3.6
100°-110°	905.3	11.0
110°-120°	883.8	10.7
120°-130°	722.2	8.7
130°-140°	589.5	7.1
140°-150°	458.9	5.6
150°-160°	330.8	4.0
160°-170°	202.5	2.5
170°-180°	68.4	0.8
0°-30°	1129.3	13.7
0°-40°	1833.9	22.2
0°-60°	3129.8	37.9
0°-90°	3793.0	46.0
90°-120°	2088.5	25.3
90°-150°	3859.1	46.8
90°-180°	4461.0	54.0
0°-180°	8253.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1717	1716	1615	1564	1561	161
15°	1634	1456	1341	1331	1349	456
25°	1452	1235	1214	1251	1246	668
35°	1274	1030	1081	1175	1331	798
45°	1101	816	892	923	785	846
55°	869	635	801	577	572	777
65°	623	436	419	344	344	612
75°	321	222	165	117	114	340
85°	55	36	33	26	24	74
90°	0	2	14	8	7	3
95°	37	118	565	209	132	44
105°	158	221	889	1688	1604	165
115°	280	334	719	1488	1747	277
125°	392	434	709	1175	1383	348
135°	469	519	704	1013	1140	363
145°	548	589	704	872	953	343
155°	624	645	709	782	811	287
165°	683	691	712	739	748	192
175°	714	714	716	721	719	68
180°	717	717	717	717	717	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1714.3	1714.3	1714.3	1714.3	1714.3
2.5°	1710.3	1728.2	1688.2	1672.4	1669.8
5°	1717.4	1715.9	1614.8	1564.1	1560.9
7.5°	1686.1	1636.7	1515.9	1460.0	1457.5
10°	1658.8	1583.8	1453.2	1402.7	1402.7
12.5°	1652.2	1533.9	1402.3	1365.0	1372.7
15°	1634.3	1455.7	1340.7	1331.3	1348.9
17.5°	1575.0	1382.6	1292.8	1314.1	1334.5
20°	1533.2	1343.4	1264.1	1303.6	1322.7
22.5°	1498.0	1305.7	1243.1	1286.4	1296.7
25°	1451.6	1234.8	1213.5	1250.9	1246.1
27.5°	1396.1	1169.8	1183.8	1206.7	1209.6
30°	1357.0	1130.5	1156.4	1179.7	1200.4
32.5°	1319.2	1085.1	1126.3	1181.6	1229.1
35°	1273.9	1029.8	1081.3	1174.6	1330.9
37.5°	1226.2	964.7	1036.0	1114.5	1164.2
40°	1192.3	918.0	1004.7	1101.6	986.8
42.5°	1155.7	881.4	957.8	1082.8	888.9
45°	1100.9	815.5	892.2	923.3	784.6
47.5°	1036.3	764.3	847.9	770.0	715.7
50°	986.8	730.1	827.0	703.8	668.8
52.5°	938.5	694.6	812.6	649.2	625.7
55°	869.4	634.9	800.8	577.3	572.4
57.5°	796.0	574.3	708.2	514.7	522.9
60°	750.3	535.0	611.7	477.7	468.1
62.5°	702.0	496.9	521.6	430.7	421.2
65°	623.1	436.4	419.1	344.2	344.2
67.5°	536.3	373.6	339.5	281.6	243.3
70°	476.2	332.7	288.7	224.5	199.0
72.5°	412.3	289.2	236.5	184.0	154.7
75°	321.3	222.4	164.7	117.4	114.2
77.5°	232.2	160.2	110.9	87.1	87.4
80°	176.2	121.9	71.8	70.2	71.8
82.5°	123.9	83.8	53.5	55.7	56.1
85°	55.4	36.3	32.7	26.0	24.4
87.5°	11.8	10.9	9.3	8.1	7.9
90°	0.0	2.1	13.5	7.8	6.8
92.5°	12.6	50.9	182.7	60.6	43.6
95°	37.1	117.5	564.9	208.7	131.6
97.5°	71.8	149.5	890.3	589.1	358.8
100°	93.4	169.3	994.6	961.6	645.8
102.5°	117.7	191.0	973.0	1348.7	1075.2
105°	157.5	221.4	888.9	1688.2	1604.5
107.5°	195.4	256.3	807.8	1721.7	1818.5
110°	220.6	278.8	767.4	1679.5	1855.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	244.9	301.4	743.1	1608.5	1831.2
115°	280.2	334.1	719.0	1487.8	1747.4
117.5°	315.2	366.3	710.5	1374.7	1640.6
120°	338.6	387.1	707.8	1308.7	1564.0
122.5°	360.3	406.0	707.8	1250.7	1486.6
125°	391.5	434.5	708.9	1175.0	1382.9
127.5°	417.0	461.4	707.8	1117.8	1295.0
130°	433.1	479.4	707.8	1085.0	1245.6
132.5°	447.6	494.7	706.9	1055.0	1203.2
135°	469.2	518.7	704.4	1013.3	1139.8
137.5°	493.3	540.3	704.4	968.7	1086.0
140°	508.6	554.8	704.4	939.8	1050.9
142.5°	523.9	568.4	703.5	913.3	1010.5
145°	548.0	588.7	704.4	871.6	953.0
147.5°	572.0	606.6	705.7	837.2	899.7
150°	587.4	619.3	706.7	818.1	870.9
152.5°	601.7	630.1	707.6	801.6	844.8
155°	624.5	645.4	708.9	781.5	811.2
157.5°	644.2	661.2	710.3	766.7	787.4
160°	656.0	670.2	711.2	757.6	773.0
162.5°	667.6	678.5	712.0	749.4	762.2
165°	683.0	690.7	712.2	739.4	748.3
167.5°	696.0	700.0	713.5	731.6	735.4
170°	703.3	705.4	714.5	728.0	729.2
172.5°	707.8	709.0	714.5	724.4	724.6
175°	714.5	714.5	715.6	721.2	719.0
177.5°	717.6	716.7	715.8	718.5	716.7
180°	716.7	716.7	716.7	716.7	716.7

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.48	19.30	19.47	20.30	21.63	17.15	17.97	18.14	18.97	20.30
	3H	20.50	21.23	21.50	22.25	23.59	18.18	18.91	19.19	19.93	21.28
	4H	21.23	21.92	22.25	22.94	24.30	18.39	19.09	19.41	20.10	21.46
	6H	21.71	22.35	22.74	23.37	24.74	18.54	19.17	19.56	20.19	21.56
	8H	21.84	22.44	22.87	23.48	24.85	18.57	19.17	19.60	20.21	21.58
	12H	21.88	22.46	22.92	23.49	24.88	18.56	19.14	19.60	20.17	21.56
4H	2H	18.85	19.54	19.87	20.56	21.92	17.79	18.48	18.81	19.50	20.85
	3H	20.95	21.53	21.98	22.57	23.94	18.96	19.54	19.99	20.58	21.96
	4H	21.76	22.29	22.80	23.33	24.72	19.24	19.76	20.28	20.80	22.19
	6H	22.35	22.80	23.39	23.86	25.25	19.44	19.90	20.49	20.96	22.34
	8H	22.51	22.94	23.56	23.99	25.39	19.50	19.92	20.55	20.97	22.38
	12H	22.58	22.96	23.65	24.03	25.44	19.50	19.89	20.57	20.95	22.36
8H	4H	21.78	22.20	22.83	23.25	24.66	19.45	19.87	20.50	20.92	22.33
	6H	22.43	22.78	23.50	23.87	25.27	19.72	20.07	20.79	21.16	22.56
	8H	22.65	22.96	23.73	24.04	25.46	19.82	20.13	20.90	21.21	22.63
	12H	22.76	23.03	23.85	24.11	25.57	19.86	20.13	20.95	21.21	22.67
12H	4H	21.73	22.11	22.80	23.18	24.59	19.44	19.83	20.51	20.89	22.30
	6H	22.40	22.71	23.48	23.79	25.21	19.75	20.06	20.83	21.13	22.56
	8H	22.63	22.90	23.72	23.97	25.44	19.86	20.13	20.95	21.21	22.67